

# VIII. Capital Facilities Element

## Introduction

### Purpose and Intent

The Capital Facilities Element discusses all current infrastructure owned by the City and establishes and documents a plan for the City to provide the infrastructure and facilities needed to serve its residents in the future. The Capital Facilities Element consolidates capital improvement projects from this and other comprehensive plan elements into a complete capital improvement program for the next six years. The purpose of the Capital Facilities Element is to determine the availability of existing capital facilities, forecast future needs for such facilities based upon land use and population growth statistics, and to determine how such facilities will be financed. The Capital Facilities Element functions as an integral part of the City's Comprehensive Plan, and is essential in maintaining adequate level of service standards for all facilities.

The Capital Facilities Element focuses on those facilities that are owned and operated by the City, which include water, sewer and stormwater management systems; community facilities such as city hall, police services, the library building, the Glen Kuntz W.R.E.C.K. Center and the Dougherty Farmstead; public works facilities such as the sewer treatment plant, permit office, public works yard, roads, parking areas and city parks. In addition to city-owned facilities, a capital improvement plan for the Riverview School District has been included as well. Separate management plans have been prepared for stormwater, water and sewer facilities, and those plans form the basis for their respective capital facilities analysis. Relevant discussion is summarized in this plan, which incorporates and adopts the utility management plans by reference as part of the Duvall Comprehensive Plan. In each of the capital improvement plans, "local funds" include capital facilities charges, impact fees, Real Estate Excise Tax funds (REETs) and the general fund; "state funds" are from state agencies; and "other funds" are monies and/or grants from various agencies.

Under the Growth Management Act (GMA), a Capital Facilities Element is required to assess the needs of a community and determine how to provide appropriate facilities for current and future residents (RCW 36.70A.070). The element must contain an inventory of existing facilities, an assessment of future facility needs and a plan for their financing, including a reassessment strategy to address potential funding shortfalls. King County has established Countywide Planning Policies (CWPPs) that shall be addressed by all of the cities in King County. The policies in the Capital Facilities section must reflect the CWPPs that are concerned with capital facilities.

## Capital Facilities

### Water Facilities

The information used in this analysis has been summarized from the *City of Duvall Comprehensive Water System Plan* prepared by RH2. In the State of Washington, water systems and facilities are regulated by the Department of Health under Washington Administrative Code 246-290. The 2004 plan also meets the requirements of the King County Department of Development and Environmental Services (DDes) and is consistent with the East King County Coordinated Water System Plan requirements.

The 2004 *City of Duvall Comprehensive Water System Plan* shall be considered a part of this Capital Facilities Element and as such is adopted as part of the Duvall Comprehensive Plan upon adoption of this Element.

### System History

The Seattle Public Utilities' (SPU) Tolt River Pipeline No.1 supplies water for the Duvall water system. The line is located approximately one-half mile south of the city limits, and is connected to Duvall's system through two interties (connections). The first intertie was constructed in 1962 near 274<sup>th</sup> Avenue NE, and is a ten-inch diameter asbestos cement transmission main. The second intertie, which was constructed as part of a

developer extension in 1983, is near Big Rock Road and is a twelve-inch diameter ductile iron transmission main. Each intertie is in combination with a pressure reducing station, appurtenant valves, and metering equipment.

#### Service Area

The service area of the system is defined by the boundaries shown on Figure CF – 1. Prior to the passage of the GMA, the East King County Water Service Plan identified a 4300-acre water service planning area for Duvall. The 2004 plan shows the boundaries of the service area as well as the larger planning area. The City's water utility already serves several areas that were outside of the UGA service area prior to the establishment of the UGA. King County Water District 119 serves an area adjacent to the City's water service area southeast of the city. A 1986 agreement established the boundary between the two service areas.

#### Existing Conditions

Duvall currently has no rights to surface waters. It holds groundwater rights to the Taylor's Landing well. No alternative sources have been used or developed. There are numerous homes using private wells within the City's service area.

The distribution system is composed of a variety of pipe sizes and material types. Older portions of the system are made up primarily of four to six inch diameter asbestos cement pipe. Areas of recent development are constructed using eight to twelve-inch diameter ductile iron pipe.

Storage is provided in the system by a 0.5 million-gallon (MG) and a 2.2 MG reservoir. The 0.5 MG tank was constructed in 1988 to replace two 55,000-gallon tanks that were then taken out of service. The 2.2 MG tank was built in 1997 to serve the water system's present and future growth needs. Cedarcrest High School has a 300,000-gallon private on-site storage system to meet required fire flow demand.

The water system consists of six connected pressure zones. The 2004 Comprehensive Water System Plan contains detailed information regarding the zone pressures and pressure reducing valve locations.

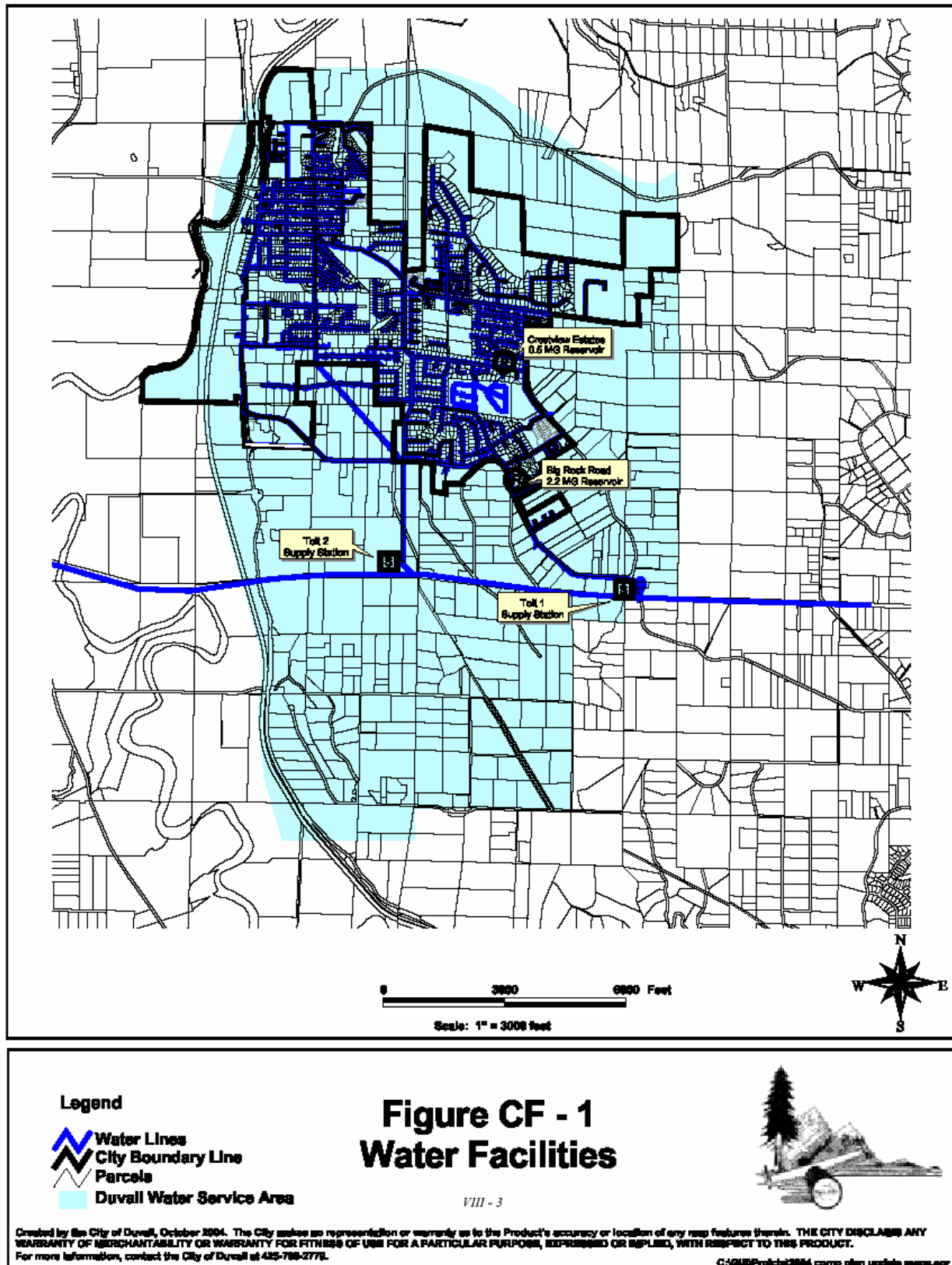
Seattle Public Utilities provides monitoring and treatment required to ensure water quality complies with federal and state standards.

#### Future Conditions

The 2004 water plan analyzes future system demand based on the expected growth in population and service connections and the average daily water usage. The projected average daily demand in 2002 was 218 gallons and the peak daily demand was 392 gallons. The plan also identifies a program of conservation methods as a primary method of increasing supply through reducing per capita and per connection usage rates. System improvements needed to meet future demand have also been identified. Duvall has a contract with the Seattle Public Utilities to supply water until 2012, and is currently evaluating various alternate supply options for ensuring a continued reliable supply.

Figure CF – 1: Water Facilities, presents the location of water facilities.

Figure CF - 1: Water Facilities



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Water Capital Improvement Plan

Table CF - 1 shows the water system capital improvement program for the six years from 2005 to 2010. These improvement projects can be divided into four general categories. They are water main improvements, pressure reducing station and relief improvements, facility improvements and miscellaneous improvements.

The City will reduce the number of pressure reducing stations to improve flows and water quality within the system and three pressure relief stations will be built. The largest project is to reconstruct the 10-inch AC main line from the SPU intertie to 3<sup>rd</sup> Avenue at 145<sup>th</sup> Street.

**Table CF - 1:  
Water Capital Improvement Plan**

PROJECT	Cost in 2003	2005	2006	2007	2008	2009	2010	TOTAL	LOCAL FUNDS <sup>1</sup>	STATE FUNDS
Water Main Improvements	\$2,536,000	\$160,000	\$469,000	\$469,000	\$310,000	\$824,000	\$304,000	\$2,536,000	\$2,536,000	-
Pressure Reducing Station & Relief Improvements	\$220,000	\$100,000	\$100,000	-	-	-	\$20,000	\$220,000	\$220,000	-
Facility Improvements	\$590,000	\$130,000	\$30,000	\$20,000	\$340,000	\$65,000	\$5,000	\$590,000	\$590,000	-
Miscellaneous Improvements	\$251,000	\$21,000	\$19,000	\$19,000	\$19,000	\$19,000	\$154,000	\$251,000	\$251,000	-
<b>TOTAL</b>	<b>\$3,597,000</b>	<b>\$411,000</b>	<b>\$618,000</b>	<b>\$508,000</b>	<b>\$669,000</b>	<b>\$908,000</b>	<b>\$483,000</b>	<b>\$3,597,000</b>	<b>\$3,597,000</b>	<b>0</b>

Source: City of Duvall Comprehensive Water System Plan

<sup>1</sup> Local funds are primarily from water capital facilities charges.

**Sewer Facilities**

The information used in this analysis has been summarized from *City of Duvall Wastewater Facility Plan*, compiled by Parametrix (2001) and the *Sewer Rate & General Facilities Charge Analysis*, compiled by FCSG (2003). In the State of Washington, sewer treatment facilities are regulated by the Department of Ecology under Washington Administrative Code 173-240. The 2001 wastewater facility plan meets the requirements of WAC 173-240-050 for a General Sewer Plan.

The 2001 *City of Duvall Wastewater Facility Plan* and the 2003 *Sewer Rate & General Facilities Charge Analysis* shall be considered a part of this Capital Facilities Element and as such are adopted as part of the Duvall Comprehensive Plan upon adoption of this Element.

System History

Sewer service was not provided in the city until fairly recently. In the mid-1960's, drainfield failures and potential health hazards prompted the Washington State Department of Health and Water Pollution Control Commission to order an engineering study of sewer options for the City. After a supplemental report prepared in 1971, the City formed a Local Improvement District in the mid-1970's to finance the construction of a sewer collection and treatment system. The City brought the system on-line in 1976. Initial construction in 1976 consisted of a dual oxidation ditch, activated sludge system with chlorine disinfection, and effluent discharge through an outfall into the Snoqualmie River.

Growth in the city required the construction of improvements to the system, including system extensions and additional pumping stations. By the late 1980's, the sewer treatment system was no longer adequate and a new sewer treatment plant was completed in 1991 using the UV-oxidation ditch process. This treatment facility was suitable throughout the 1990s, until rapid growth caused the facility to be inadequate yet again. In 1999, a building moratorium went into effect for any new development within the city limits. A new facility was built and put into operation in late summer of 2005.

Service Area

The service area of the City's sewer system is defined as any property within the city limit boundaries. All properties currently outside the city limits are on septic systems. When properties within the UGA choose to

annex into the city, all properties that develop or redevelop will be required to connect to the City's sewer system.

#### Existing Conditions

As of 2006, Duvall's sewer collection system serves 2,266 customers and consists of approximately 18.7 miles of gravity and force mains and eight city-owned submersible pump stations. In addition, Riverview School District owns and operates a pump station at Cedarcrest High School that discharges to the City's collection system. The majority of the system consists of eight-inch diameter gravity mains. Most of the original construction was either concrete or asbestos cement pipe, while newer construction is mainly PVC pipe. The *2001 Wastewater Facility Plan* includes a detailed description of the treatment plant and the sewage treatment process. Sewer characteristics are also described in the 2001 plan.

#### Future Conditions

The *2001 Wastewater Facility Plan* evaluated the collection system using the HYDRA computer model. The model identified several locations where system deficiencies exist and improvements are required to meet the needs of future development. The report also recommends continuation of the City's program to reduce infiltration and inflow (I/I) into the system. Infiltration and inflow is typically caused by deterioration in the collection system such as failed gaskets, broken pipes, and leaking manholes.

The 2001 Plan identifies system deficiencies in collection pipelines and, in one pump station, electrical problems. Future system improvements include on-site generators, flow meters, and several new gravity mains. An evaluation of the sewer facility, constructed in 1991, showed that it was designed to serve a population of 6,000 residents.

In the spring of 2003, the State legislature understood the critical need to upgrade Duvall's sewer treatment plant and appropriated \$4-million in its 2003 budget to assist the City in constructing this approximately \$11-million project. The new sewer treatment plant, which came on line in late summer 2005, includes innovative "membrane bioreactor" (MBR) technology, which is able to produce Class A reclaimed water, suitable for irrigation, industrial process water and salmon recovery projects. Principal components of the project consisted of:

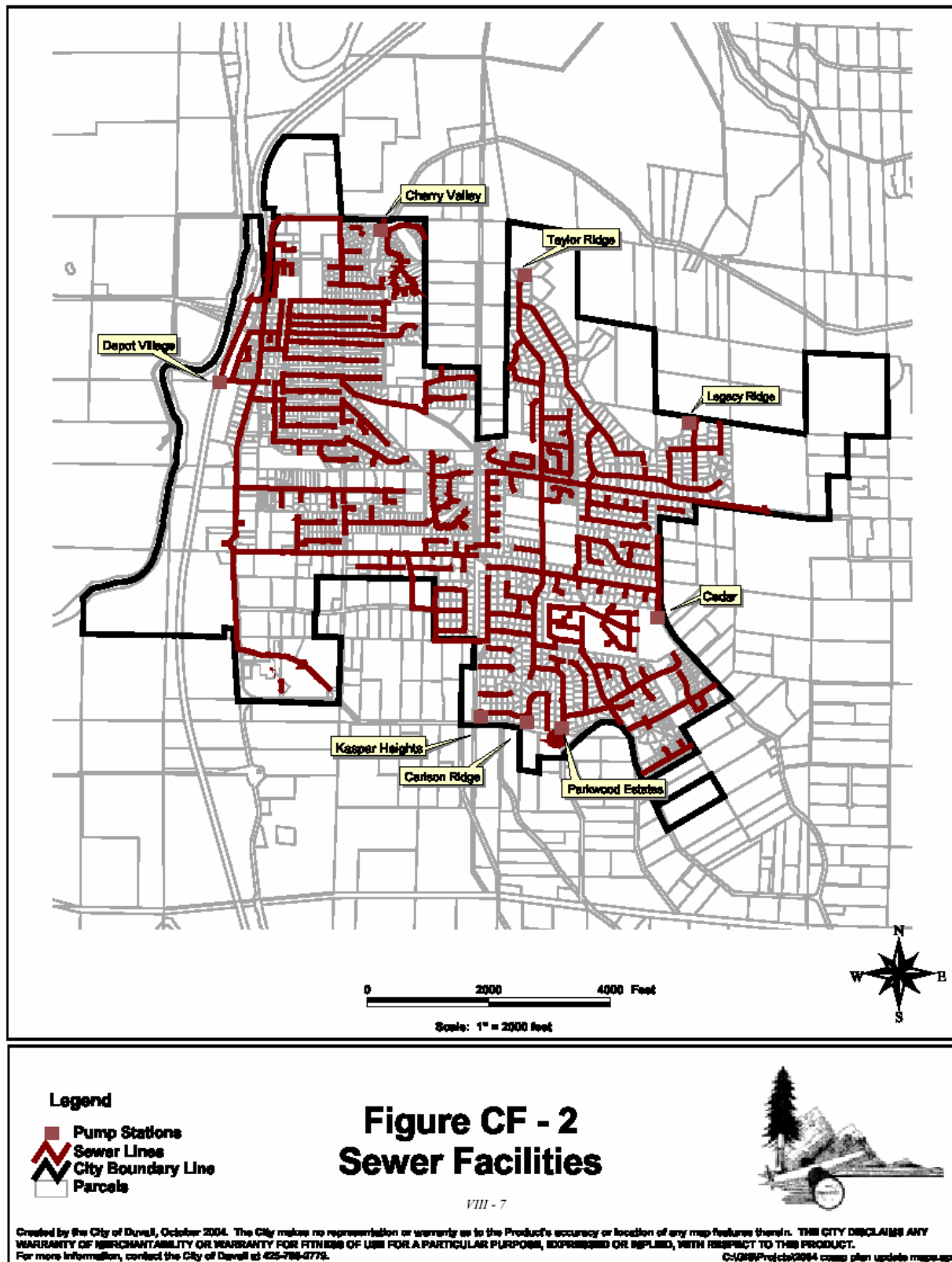
- Excavation, fill, grading, and removal of excess material from the site;
- Construction of MBR, aeration, anoxic tanks, road work and headworks;
- Construction of MBR building, and blower, pump and electrical rooms;
- Construction of MBR equipment, other mechanical equipment, piping, and electrical equipment services;
- Construction of solids building, with belt press, biofilter and electrical rooms;
- Paving and hydroseeding, and;
- Demolition of oxidation ditches, clarifier equipment and headworks.

The expanded treatment plant was constructed to meet the population estimates set out in the 2004 Comprehensive Plan; however, the plant can be expanded in place through the addition of a "train" to serve the ~12,200 proposed in the 2006 Comprehensive Plan update. This capacity is enough to accommodate residents and associated commercial development, within the city limits as well as much of the designated Urban Growth Areas as they are annexed to the city.

In conjunction with proposed capital improvements, the updated sewer system plan was prepared to reflect planned changes in sewer facilities. The sewer plan uses revised land use and population information that is included in this Comprehensive Plan update.

Figure CF – 2: Sewer Facilities, presents the location of sewer facilities.

Figure CF - 2: Sewer Facilities



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**Sewer Capital Improvement Plan**

As required by the GMA, the City has prepared a capital improvement program that identifies projects needed to expand, maintain and upgrade the system in the next six years. The current sewer CIP, as revised by FCSG, is shown in Table CF - 2: Sewer Capital Improvement Plan.

**Table CF - 2:  
Sewer Capital Improvement Plan**

PROJECT	Cost in 2003	2004	2005	2006	2007	2008	2009	TOTAL	LOCAL FUNDS <sup>1</sup>	STATE FUNDS
Sewer Treatment Plant	\$12,423,000	\$12,423,000	-	-	\$400,000	-	-	\$12,823,000	\$1,600,000	\$11,223,000 (\$7.2 million WDOE + interest @ 20 years, \$4 million WDOE grant)
Sewer Plant – 4 <sup>th</sup> Train						\$100,000	\$1,400,000	\$1,500,000	\$1,500,000	
Sidewalk – Sewer Treatment Plant					\$650,000			\$650,000	\$650,000	
Infiltration and Inflow Projects	\$56,000	\$57,950	\$59,989	\$62,088	\$64,261	\$66,510	\$68,838	\$379,636	\$379,636	-
<b>Pump Stations</b>										
Cedars	\$170,000					\$201,907		\$201,907	\$201,907	
Pipe Main Repair & Replacement	\$165,000				\$190,030	\$196,681	\$203,565	\$755,276	\$755,276	
<b>TOTAL</b>	<b>\$12,814,000</b>	<b>\$12,480,950</b>	<b>\$59,989</b>	<b>\$62,088</b>	<b>\$1,304,291</b>	<b>\$565,098</b>	<b>\$1,672,403</b>	<b>\$15,659,819</b>	<b>\$5,086,819</b>	<b>\$11,233,000</b>

Source: Revised CIP from FSCG Report, "Sewer Rate and General Facilities Charge Analysis"

<sup>1</sup> Local funds are primarily from sewer capital facility charges.

**Stormwater Facilities**

The information used in the stormwater facilities analysis has been summarized from the *1997 City of Duvall Stormwater Facility Plan*, compiled by Gardner Consultants (1997). The Plan shall be considered a part of this Capital Facilities Element and as such is adopted as part of the Duvall Comprehensive Plan upon adoption of this element.

**System History**

The city of Duvall occupies a portion of a plateau east of the Snoqualmie River near Cherry Creek. Although the Snoqualmie River frequently floods, its floodplain extends to the east in the valley below the city. Duvall's location on the elevated riverbank prevents most floodwaters from reaching the developed property in the city. However, there are a number of properties located west of Main Street along the Snoqualmie Valley Trail and two properties along Cherry Valley Road that are susceptible to major flood events.

Duvall has historically experienced water damage due to inadequate drainage facilities. Much of the existing drainage system throughout the downtown area was designed prior to the development of a comprehensive stormwater management plan.

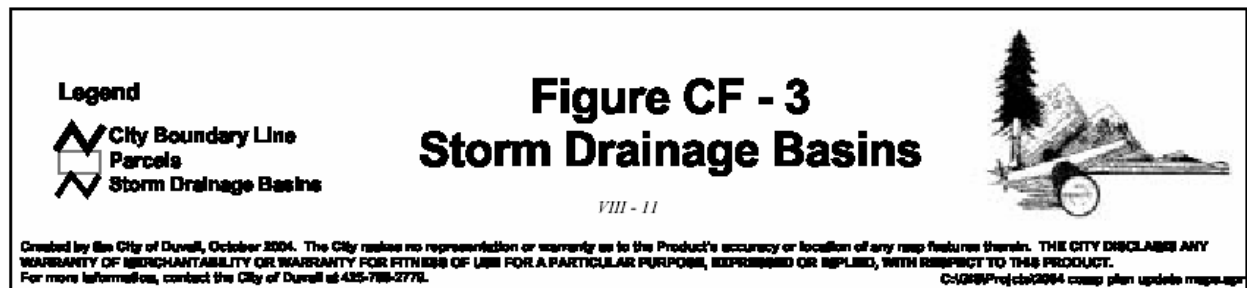
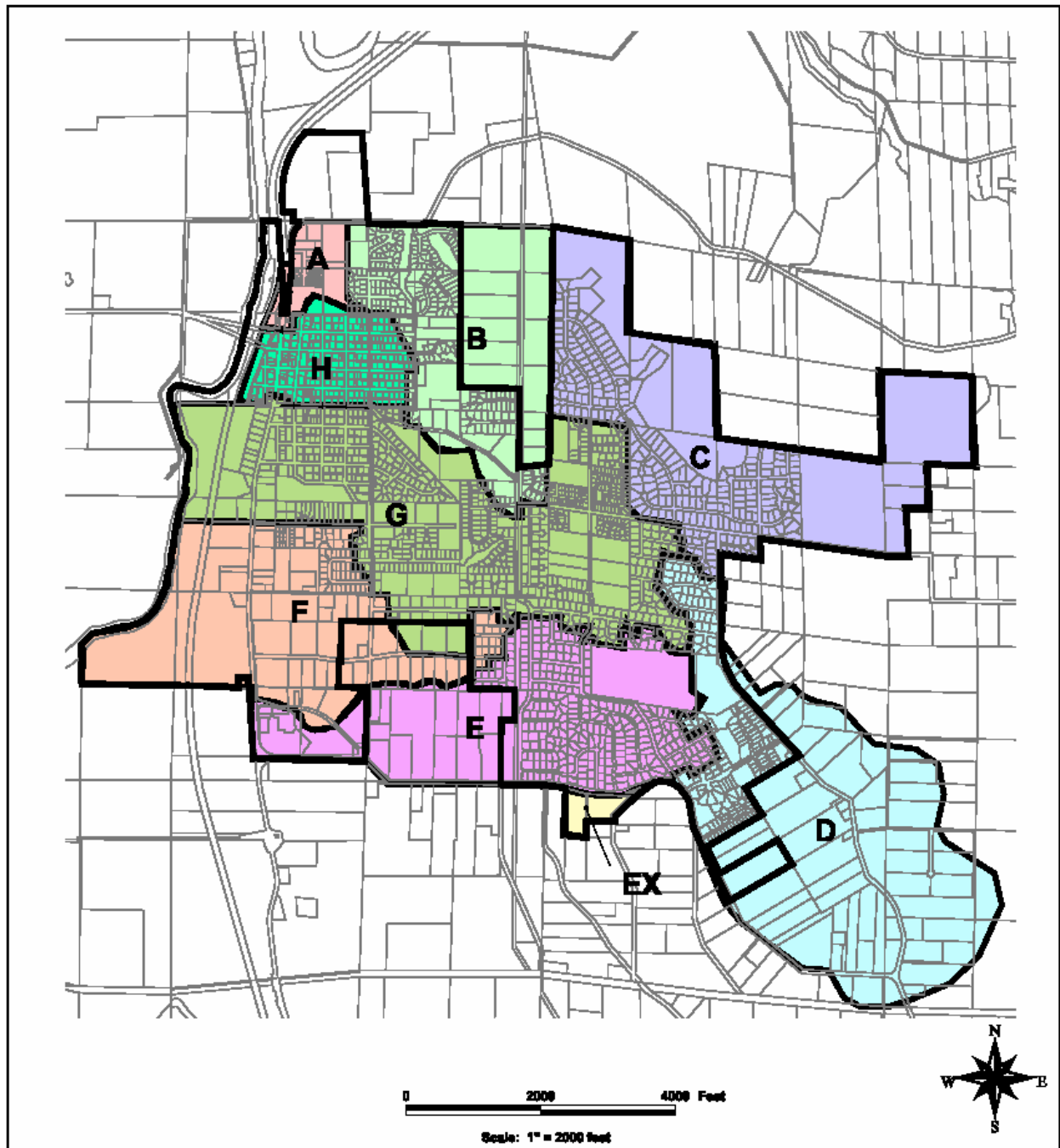
The City's current drainage ordinance was adopted in 2001. This ordinance establishes a storm drainage utility and delineates the stormwater management requirements for development.

**Existing Conditions**

The city of Duvall's drainage area is divided into nine different drainage basins. Two basins drain northerly and easterly into tributaries of Cherry Creek, three basins flow westerly into the lowlands adjacent to the Snoqualmie River and then into the river. The remaining basins drain into natural drainage courses or culverts maintained by King County. Figure CF – 3: Storm Drainage Basins, shows drainage basin boundaries.

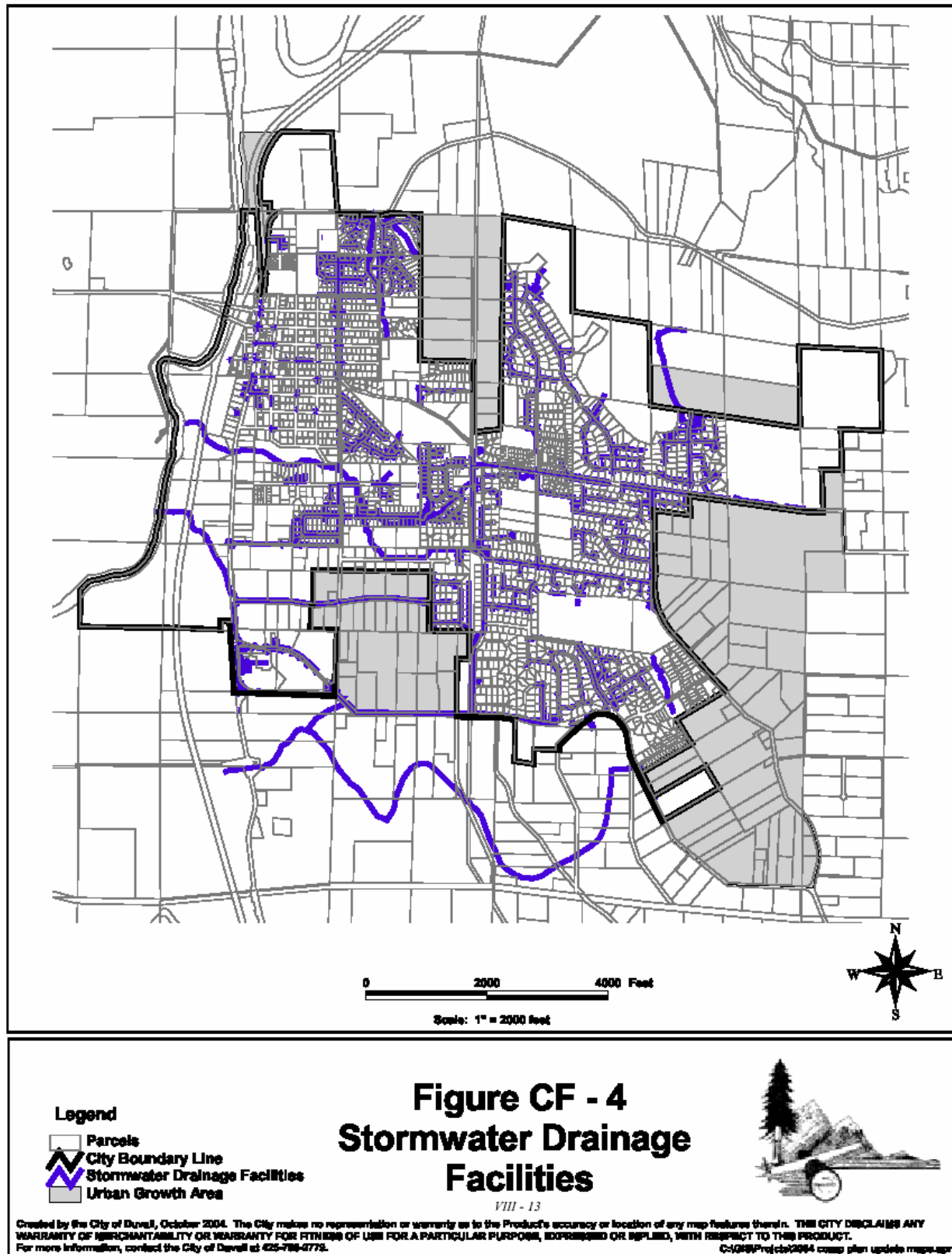
The City maintains 28 stormwater detention ponds and 31 tanks. Drainage regulations mandate water quality and detention for most new development, and the majority of the detention ponds were constructed as part of the residential development process. Figure CF – 4: Stormwater Drainage Facilities, shows the location of stormwater drainage facilities.

Figure CF - 3: Storm Drainage Basins



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Figure CF - 4: Stormwater Drainage Facilities



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Inadequate stormwater management can have a significant effect on receiving water quality. Duvall's water quality program has as a goal to identify and quantify water quality problems and then to institute a program to correct and prevent them. Duvall currently uses operation and maintenance measures such as street sweeping, catch basin and pipeline cleaning, detention pond and tank cleaning, and an emergency response program. Duvall has also established regulations such as design standards and construction standards to avert potential impacts from new development.

#### Future Conditions

The extent of capital improvements for the Duvall drainage system is limited to correcting several different existing drainage problems and the installation of several large storm drainage collection systems to provide for the portions of the city which will likely be developed in the future.

#### Stormwater Capital Improvement Plan

As required by the GMA, the City has prepared a capital improvement program that identifies projects needed to expand, maintain and upgrade the stormwater system. The last update of the stormwater CIP was in the *1997 Stormwater Management Plan*, and is shown below in Table CF - 3: Stormwater Capital Improvement Plan.

**Table CF - 3:  
Stormwater Capital Improvement Plan**

PROJECT	Cost in 2004	2004-2005	2006	2007	2008-2009	TOTAL	LOCAL FUNDS <sup>1</sup>	STATE FUNDS
Duvall Highlands Pond Expansion	\$76,500	\$76,500				\$76,500	\$76,500	-
Basin E storm drainage system	\$750,000		\$750,000			\$750,000	\$750,000	-
Basin E overflow SD connection	\$270,000			\$270,000		\$270,000	\$270,000	-
Basin F storm drainage system	\$600,000				\$600,000	\$600,000	\$600,000	-
Richardson and 1 <sup>st</sup> Ave storm drain and catch basin	\$13,000			\$13,000		\$13,000	\$13,000	-
Richardson and Ring St. storm drain and catch basin	\$22,000			\$22,000		\$22,000	\$22,000	-
Crestview Estates restrictor structure	\$6,000				\$6,000	\$6,000	\$6,000	-
Basin G install 1,050 LF of 48" pipe	\$210,000			\$210,000		\$210,000	\$210,000	-
Basin H install 400 LF curb & gutter	\$12,000			\$12,000		\$12,000	\$12,000	-
<b>TOTAL</b>	<b>\$1,959,500</b>	<b>\$76,500</b>	<b>\$750,000</b>	<b>\$527,000</b>	<b>\$606,000</b>	<b>\$1,959,500</b>	<b>\$1,959,500</b>	<b>0</b>

Source: 1997 Duvall Stormwater Management Plan

<sup>1</sup> Local funds are primarily stormwater area charges.

### **Transportation Facilities**

The city of Duvall is served by a wide variety of transportation facilities, ranging from county equestrian and mountain biking trails to a network of arterial and secondary roads and a state highway. The City is primarily responsible for the development and maintenance of facilities within its city limits, such as streets and associated traffic control hardware, sidewalks and bicycle lanes. Public transportation facilities are operated by King County METRO and maintained by METRO or the city of Duvall. They include a city-owned park & ride lot at Woodinville-Duvall Road and Main Street (Community Car Park) and transit loading facilities along Brown Avenue and on Main Street. The Transportation Element of the Comprehensive Plan provides a more complete reference to existing and planned transportation facilities in the city.

#### Transportation Capital Improvement Plan

As required by the GMA, the City has prepared a capital improvement program that identifies projects needed to expand, maintain and upgrade the transportation system in the next six years. The current transportation CIP is shown in Table CF - 4: Transportation Capital Improvement Plan.

**Table CF - 4:**  
**Transportation Improvement Program - 2006-2011**

PROJECT	Cost in 2006	2006	2007	2008-2011	TOTAL	LOCAL FUNDS <sup>1</sup>	STATE FUNDS / FEDERAL FUNDS
Main Street (Downtown) – Cherry Valley Rd. to Valley St.	\$2,800,000	\$60,000	\$160,000	\$2,580,000	\$2,800,000	\$1,800,000	\$0 / \$1,000,000
NE 145th Street NE– 3 <sup>rd</sup> Avenue NE to 275 <sup>th</sup> Ave	\$1,960,000	\$100,000	\$1,860,000		\$1,960,000	\$1,760,000	\$200,000 / \$0
3 <sup>RD</sup> Avenue Improvements	\$5,410,000			\$5,410,000	\$5,410,000	\$5,020,000	\$390,000 / \$0
275 <sup>th</sup> Avenue NE	\$1,000,000			\$1,000,000	\$1,000,000	\$900,000	\$100,000 / \$0
<b>TOTAL</b>	<b>\$11,170,000</b>	<b>\$160,000</b>	<b>\$2,020,000</b>	<b>\$8,990,000</b>	<b>\$11,170,000</b>	<b>\$9,480,000</b>	<b>\$1,690,000</b>

Source: City of Duvall Public Works Department

<sup>1</sup> Local funds are provided by motor vehicle fuel taxes, property taxes, miscellaneous revenues, grants, and developer improvements. Refer to Table T-10 on page VI-50 of the Transportation Element.

### Parks and Recreation Facilities

Public parks and recreational facilities serving Duvall are owned and operated by either the city of Duvall or King County. The City's facilities include Big Rock Ballfields, Taylor Park, Depot Park, McCormick Park, Taylor's Landing, Lake Rasmussen Park, Central Park, and a few neighborhood parks. The City also owns the historic Dougherty Farmstead, located on the northern boundary of the Duvall, and a few large open space areas. There are also three sites which serve the Duvall area that are owned by King County Parks. These include the Snoqualmie Valley Trail, the Tolt Pipeline Trail, and Duvall Community Park. For more detailed parks and recreation information, refer to the Parks and Recreation Element.

#### Parks and Recreation Capital Improvement Plan

As required by the GMA, the City has prepared a capital improvement program that identifies projects needed to expand, maintain and upgrade the parks and recreation system in the next six years. The current parks & recreation CIP is shown in Table CF –5: Parks and Recreation Capital Improvement Plan.

**Table CF - 5:**  
**Parks and Recreation Capital Improvement Plan**

PROJECT	2005	2006	2007	2008	2009-2010	TOTAL	LOCAL FUNDS <sup>1</sup>	STATE FUNDS	OTHER
McCormick Park		\$ 150,000	\$ 100,000			\$ 250,000	\$ 250,000		
Big Rock Ballfields	\$ 75,000	\$ 125,000	\$ 550,000			\$ 750,000	\$ 700,000		\$ 50,000
Taylor's Landing	\$ 125,000		\$ 150,000			\$ 275,000	\$ 275,000		
Taylor Park	\$ 150,000						\$ 25,000		\$ 125,000
Dougherty Farmstead			\$ 20,000			\$ 20,000	\$ 20,000		
Big Rock Park		\$ 30,000				\$ 30,000	\$ 30,000		
Lake Rasmussen			\$ 200,000			\$ 200,000	\$ 200,000		
PSE Trail				\$ 150,000		\$ 150,000	\$ 150,000		
Thayer Barn		\$ 180,000				\$ 180,000	\$ 180,000		
Skate Board Park		\$ 170,000	\$ 100,000			\$ 270,000	\$ 230,000		\$ 40,000
Public Art		\$ 20,000		\$ 20,000		\$ 40,000	\$ 40,000		
Depot Park			\$ 150,000			\$ 150,000	\$ 150,000		
Tot Lots			\$ 500,000		\$ 500,000	\$ 1,000,000	\$ 750,000	\$ 50,000	
<b>TOTAL</b>	<b>\$ 325,000</b>	<b>\$ 675,000</b>	<b>\$ 1,770,000</b>	<b>\$ 170,000</b>	<b>\$ 500,000</b>	<b>\$ 3,265,000</b>	<b>\$ 2,900,000</b>	<b>\$ 50,000</b>	<b>\$ 215,000</b>

Source: City of Duvall public works Department

<sup>1</sup> Local funds are primarily from park impact fees and real estate excise tax funds (REETs).



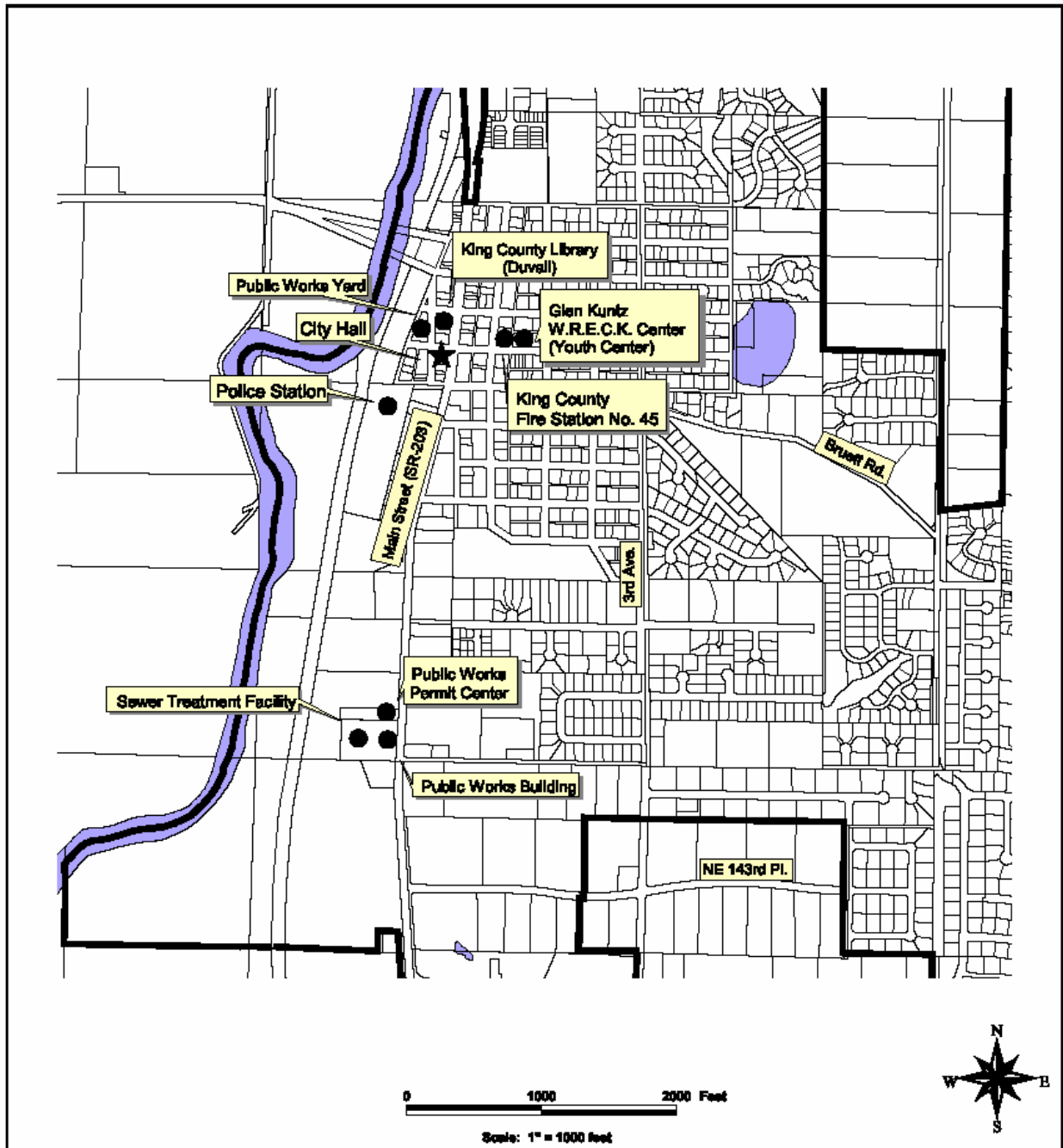
**General Government Facilities**

General government facilities owned by the city of Duvall include city hall, the public works buildings, the police building, the library building and the Glen Kuntz W.R.E.C.K. center. Fire protection in Duvall is provided by King County Fire District 45 and is neither owned nor operated by the City. However, fire services will be addressed as part of the capital facilities summary.

Figure CF – 5: General Government Facilities, presents the location of each facility in Duvall.

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Figure CF - 5: General Government Facilities



- Legend**
- City Boundary Line
  - Parcels
  - Government Facilities

## Figure CF - 5 General Government Facilities

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For more information, contact the City of Duvall at 425-788-4773.

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*City Hall – Existing*

The existing 3,004 square foot, 2-story city hall building is located on the southwest corner of Main Street and Stella Street and accommodates 8 employees. The most recent expansion to the building was in 1994, when a lower floor was constructed to house the Council Chambers, and more recently to house the Duvall Police Department (moved out in Fall 2004). The facility is the location for the city administration, finance, planning, and utility billing departments. Parking is currently provided along the side of the building on Stella Street and within the right-of-way along Main Street. Parking is also provided behind the building along Riverside Avenue.

*City Hall – Future*

Current City services are spread out amongst four separate locations. In order to consolidate all administrative functions and customer services in a single facility and to anticipate future population growth within the next 10 years and beyond, an expanded or new city hall must be constructed. That city hall should be constructed to house all city offices, including the police and public works departments. During the 2003 city-wide visioning process, Duvall citizens indicated that the ideal location for a new facility would be to have city hall located in Old Town. Potential sites for a new building are the public works yard at Riverside Avenue and Stella Street, directly behind the current facility between Riverside Avenue and Railroad Avenue, or at a site along First Avenue. However, the City may also consider another site elsewhere in Old Town or, if Old Town is not feasible, elsewhere in the city if necessary.

*Public Works Building – Existing*

The existing public works building is located south of Old Town along Main Street between Kennedy Drive and NE 145<sup>th</sup> Street at 14525 Main Street NE. The building contains approximately 1,700 square feet of office space and 1,925 square feet of garage and unfinished storage space. The building currently houses the engineering department, archives, and a garage/shop.

*Public Works Building – Future*

The existing public works building can be reconfigured to accommodate additional employees in the future. Its location directly adjacent to sewer treatment plant operations would affect its future expansion and public use.

*Public Works Permit Center – Existing*

The existing public works permit center building is located south of Old Town along Main Street between Kennedy Drive and NE 145<sup>th</sup> Street at 14701 Main Street NE. The office contains approximately 2,275 square feet of office space. The building houses the building department, public works reception, archives and a conference room.

*Public Works Permit Center – Future*

The City is considering selling the Permit Center and relocating building and public works department services in another location within the city.

*Public Works Yard – Existing*

The existing storage yard and office is located between Stella and Cherry streets at Riverside Avenue. This facility houses all equipment, materials and some shop functions. A new covered structure for the site was completed in 1997 after the collapse of the old structure during a snowstorm in 1996.

*Public Works Yard – Future*

Because space is limited for equipment storage, and because the current location in downtown is adjacent to properties, which are a key component to redevelopment and revitalization, the City would like to relocate the facility to another location. The City could potentially use additional city-owned property adjacent to the new sewer treatment facility or acquire and develop a new facility in the southern portion of the city. Both options would be preferred rather than keeping the existing facility in its current location in downtown. Also, the City may consider selling the property for redevelopment or use the property as a site for a new city-owned facility, such as a new city hall.

*Sewer Treatment Facility – Existing*

The existing sewer treatment facility is located south of Old Town along Main Street between Kennedy Drive and NE 145<sup>th</sup> Street at 14701 Main Street NE and was completed in 1991. This treatment facility was suitable throughout the 1990s, until rapid growth caused the facility to be inadequate. A building moratorium went into effect in 1999, curtailing all new development (with the exception of a random allocation of 140 sewer equivalent residential units in 2002) until the completion of a new sewer treatment facility.

The new sewer treatment plant, includes innovative “membrane bioreactor” (MBR) technology, which is capable of producing Class A reclaimed water, suitable for irrigation, industrial process water and salmon recovery projects. The expanded treatment plant was constructed to meet the population estimates set out in the 2004 Comprehensive Plan; however, the plant can be expanded in place through the addition of a “train” to serve the +/-12,200 proposed in the 2006 Comprehensive Plan update. This capacity is enough to accommodate residents and associated commercial development, within the city limits as well as much of the designated Urban Growth Areas as they are annexed to the city.

*Police Services – Existing*

The police department is comprised of a chief, lieutenant, 10 full-time officers and a full time clerk. Some officers specialize in specific aspects of law enforcement, such as crime prevention, DARE, school resource officer, field training, evidence collection, traffic accident investigation, bicycle patrol, and river patrol. Each aspect requires specialized training. In addition to patrolling the city of Duvall, the police department began serving the city of Carnation with police services on October 1, 2004. That service is provided in accordance with an interlocal agreement between Duvall and Carnation. An additional 3 officers have been hired to fulfill the city’s contractual obligations with Carnation.

The Department is currently located in a temporary use/permanent facility located at the end of Stephens Street adjacent to Depot Park, which was completed in Fall 2004. The facility, which is located on approximately 6.7 acres, is a 3,900 square foot modular building, including a 1,350 square foot sally port, 7 space parking lot reserved for police and a 49 space parking lot for public and police uses. This facility was built to resolve the unsafe and inefficient location in the city hall building.

*Police Services – Future*

The existing temporary use/permanent facility is projected to accommodate up to 20 police staff members. The City expects that this facility will be able to provide police services for about 8-10 years. As city population and the demand for increased police services and protection increases, the City will likely need to either expand this facility or relocate to another part of the city.

*Fire & Emergency Services – Existing*

Duvall/King County Fire District 45, which encompasses about 50 square miles and includes the city of Duvall, serves the communities of Lake Margaret and Lake Marcel, and surrounding areas. The District boundary is the County line on the North, 244 Avenue NE on the West, and the forest and mountains on the East. The South border doesn’t follow roads but instead follows various property lines. The estimated population of the District is between 12,000-14,000. The District provides fire suppression, rescue, emergency medical, prevention, public education, and many other services to the community. These services are provided 24 hours a day by a combination of volunteer and career personnel.

The District has four fire stations located throughout the area, one of which is located in Duvall. The Duvall Station (Station 66) is the administrative headquarters and is located at the corner of First Avenue and NE Stella Street in Duvall. It usually houses an engine, an aid unit, a rescue unit, a water tender, and a rescue boat. The building also has a large meeting room which has served as the Duvall City Council chambers since April 2004. The station was completed in June 2003.

*Fire & Emergency Services – Future*

The District does not anticipate the need for another facility for some time. However, as city population and demand for fire services continues to increase, expenses for services, equipment and facilities will need to be allocated to provide adequate fire safety for Duvall and the surrounding community.

*Library– Existing*

The City owns a 3,790 square foot, 2-story building which was built in 1934 and is located on the west side of Main Street between Stella and Cherry streets. This building serves both as the City's community center/meeting room and the Duvall Library Branch of the King County Library System (KCLS), who have been in their space since the 1930's. There is also a small parking lot on the west side of the building off Riverside Drive that is accessible to the community meeting room on the lower floor. The library is provided guidance by the Library Board, which is a 7-member board, 5 of whom are appointed by the Mayor. The Board provides leadership and direction for the Duvall Library, serves in an advisory capacity to the City Council and coordinates with and provides input to the KCLS Board of Trustees and local library officials. The library program in Duvall dates back to 1932, and as of the 2000 Census, served approximately 12,675 people.

*Library – Future*

Although the building was recently renovated, the facility will not meet the growing needs of the Duvall Library as the city's population increases. KCLS has plans to construct a new 8,000 square foot library building in Duvall. The KCLS capital structures levy was approved in Fall 2004. The District's ultimate goal is to build the new facility within the downtown area. However, KCLS may also consider another site elsewhere in the city.

*Youth (Glen Kuntz W.R.E.C.K.) Center – Existing*

The City owns the 3,000 square-foot Glen Kuntz W.R.E.C.K. Center building located on Stella Street between 1<sup>st</sup> and 2<sup>nd</sup> avenues. The building in the past has been used as a church, housed the police department, city hall, and served as city storage. In 2002, the first floor of the building was renovated and expanded to accommodate a youth center. Friends of Youth operated the Center until August 2004. In October 2004, the Center was taken over by the YMCA of Greater Seattle.

*Youth (Glen Kuntz W.R.E.C.K.) Center – Future*

The existing basement of the building will be developed as a 24 x 40 daylight basement for an additional office and storage space. In order to accommodate for accessibility, the existing grade will be excavated. The gravel parking lot will be developed as either parking and/or outdoor recreational space.

*Creek and River Improvements*

There are three creeks, Coe-Clemons, Cherry, and Thayer creeks, and the Snoqualmie River, in Duvall. The Snoqualmie River and Coe-Clemons and Thayer creeks have salmonid species present in them. The City has begun implementing the 2002 Stream Habitat Assessment Report through projects funded by the King Conservation District. Those funds come from the \$5 per parcel assessment on properties in most areas of King County. \$1 of the \$5 for Duvall's parcels is available to the City without competition; funds collected from the all of the affected areas of King County are put into a pot and divided up by 7 to represent the 7 watersheds. Our watershed, the Snoqualmie Watershed, receives a seventh of those funds and awards funds through a competitive grant process. Duvall has completed three projects and received grant funding for a fourth. Projects completed to date include the Habitat Assessment Report, a Fish Habitat Restoration Plan, and the removal of two culverts on Coe-Clemons Creek and replacement with bridges. Other funds may be available from the state to implement the Snohomish Basin Habitat Conservation Plan and the City's Stream Habitat Assessment Report.

*General Government Capital Improvement Plan*

As required by the GMA, the City has prepared a capital improvement program that identifies projects needed to expand, maintain and upgrade general government facilities in the next six years. The current general government CIP is shown in Table CF - 6: General Government Capital Improvement Plan.

**Table CF - 6:  
General Government Capital Improvement Plan**

PROJECT	2004	2005	2006	2007	2008	2009	TOTAL	LOCAL FUNDS <sup>1</sup>	OTHER FUNDS
Civic Plaza/Old Town Park				\$100,000			\$100,000	\$100,000	
Public Works Yard						\$100,000	\$100,000	\$100,000	
City Hall			\$100,000		\$100,000		\$200,000	\$200,000	
Stream Enhancement Projects		\$90,000		\$100,000		\$100,000	\$290,000	\$10,000	\$280,000
Eng. Building Expansion/Renovation					\$300,000		\$300,000	\$300,000	
Youth Center			\$35,000	\$50,000			\$85,000	\$85,000	
W.R.E.C.K. Center		\$25,000	\$150,000				\$175,000	\$25,000	\$150,000
<b>TOTAL</b>	<b>-</b>	<b>\$115,000</b>	<b>\$285,000</b>	<b>\$250,000</b>	<b>400,000</b>	<b>\$200,000</b>	<b>\$1,250,000</b>	<b>\$820,000</b>	<b>\$430,000</b>

Source: City of Duvall public works Department

<sup>1</sup> Local funds are primarily from real estate excise tax funds (REETs) and the general fund.

### Riverview School District Facilities

The Riverview School District serves the cities of Duvall and Carnation and surrounding rural areas. Cherry Valley Elementary, Eagle Rock Multi-Age Program and Cedarcrest High Schools are located within the city limits, while Tolt Middle School, Carnation Elementary, and Stillwater Elementary are located outside the city. This *2006 Riverview School District Capital Facilities Plan* summarizes classroom sizes and capacities, as well as a CIP that presents the financial plan for the next six years. The Plan shall be considered a part of this Capital Facilities Element and as such is adopted as part of the Duvall Comprehensive Plan upon adoption of this element.

#### School Classroom Sizes

The Riverview School District establishes its level of service by defining class size goals. Table CF – 7: Riverview School District Standard of Service, shows the average number of students per classroom. Student capacity is determined by classroom size goals as well as building area.

**Table CF - 7:  
Riverview School District Standard of Service**

Classroom Size	Average Students Per Classroom
<b>ELEMENTARY</b>	
Regular	24
Regular, alternative, gifted	12
Learning support classrooms	0
<b>MIDDLE SCHOOL</b>	
Regular	24
Regular (portables)	24
Self-contained learning classrooms	12
Learning support classrooms	0
<b>HIGH SCHOOL</b>	
Regular	24
Regular (portables)	24
Self-contained learning classrooms	12
Learning support classrooms	0
Vocational education	24

Source: 2004 Riverview School District Capital Facilities Plan



School Capacities

School capacities for Riverview School District are shown in Table CF – 8: Riverview – Current School Capacities and Enrollment. All schools in the District have enrollments under their structure capacities.

**Table CF - 8:  
School Enrollment and Capacity Projections 2006-07 through 2011-12**

<b>Elementary (Pre K - 5)</b>	<b>05-06 Actual</b>	<b>06-07</b>	<b>07-08</b>	<b>08-09</b>	<b>09-10</b>	<b>10-11</b>	<b>11-12</b>
Projected Enrollment	1,463	1,526	1,635	1,690	1,735	1,699	1,698
Capacity in Permanent Facilities	1,440	1,440	1,440	1,440	1,440	1,440	1,440
Capacity in New Perm. Facilities (New K-8)	0	0	0	0	0	0	200
<b>Net Surplus or (Deficit) in Perm. Facilities</b>	<b>-23</b>	<b>-86</b>	<b>-195</b>	<b>-250</b>	<b>-295</b>	<b>-259</b>	<b>-58</b>
Capacity in Relocatables	312	312	312	312	312	312	312
Number of Relocatables	15	15	15	15	15	15	15
Capacity with Relocatables	1,752	1,752	1,752	1,752	1,752	1,752	1,952
<b>Net Surplus or (Deficit) in all Facilities</b>	<b>289</b>	<b>226</b>	<b>117</b>	<b>62</b>	<b>17</b>	<b>53</b>	<b>254</b>

<b>Middle School</b>	<b>05-06 Actual</b>	<b>06-07</b>	<b>07-08</b>	<b>08-09</b>	<b>09-10</b>	<b>10-11</b>	<b>11-12</b>
Projected Enrollment	694	725	729	798	827	983	1,044
Capacity in Permanent Facilities	696	696	696	696	696	696	696
Capacity in New Perm. Facilities (New K-8)							520
<b>Net Surplus or (Deficit) in Perm. Facilities</b>	<b>2</b>	<b>-29</b>	<b>-33</b>	<b>-102</b>	<b>-131</b>	<b>-287</b>	<b>172</b>
Capacity in Relocatables	120	144	144	144	144	144	144
Number of Relocatables	5	6	6	6	6	6	6
Capacity with Relocatables	816	840	840	840	840	840	1,360
<b>Net Surplus or (Deficit) in all Facilities</b>	<b>122</b>	<b>115</b>	<b>111</b>	<b>42</b>	<b>13</b>	<b>-143</b>	<b>316</b>

<b>High School</b>	<b>05-06 Actual</b>	<b>06-07</b>	<b>07-08</b>	<b>08-09</b>	<b>09-10</b>	<b>10-11</b>	<b>11-12</b>
Projected Enrollment	882	926	972	986	1,053	1,045	1,115
Capacity in Permanent Facilities	948	948	948	948	980	980	980
Capacity in New Perm. Facilities (P.E.)				32			
<b>Net Surplus or (Deficit) in Perm. Facilities</b>	<b>66</b>	<b>22</b>	<b>-24</b>	<b>-6</b>	<b>-73</b>	<b>-65</b>	<b>-135</b>
Capacity in Relocatables	168	168	168	168	168	168	168
Number of Relocatables	7	7	7	7	7	7	7
Capacity with Relocatables	1,116	1,116	1,116	1,148	1,148	1,148	1,148
<b>Net Surplus or (Deficit) in all Facilities</b>	<b>234</b>	<b>190</b>	<b>144</b>	<b>162</b>	<b>95</b>	<b>103</b>	<b>33</b>

<b>Surplus/Deficiency Capacity</b>	<b>05-06 Actual</b>	<b>06-07</b>	<b>07-08</b>	<b>08-09</b>	<b>09-10</b>	<b>10-11</b>	<b>11-12</b>
Total Enrollment	3,039	3,177	3,336	3,474	3,615	3,727	3,857
Capacity in Permanent Facilities	3,084	3,084	3,084	3,084	3,116	3,116	3,116
Capacity in New Perm. Facilities				32			720
Capacity in Perm. Facil. and Relocatables	<b>3,684</b>	<b>3,708</b>	<b>3,708</b>	<b>3,740</b>	<b>3,740</b>	<b>3,740</b>	<b>4,460</b>
Surplus Capacity	645	531	372	266	125	13	603

Source: 2006 Riverview School District Capital Facilities Plan

**Future Conditions**

In order to accommodate growth, the District plans to add two portable classrooms at Tolt Middle School during 2006 and plans to build an additional Kindergarten on the site adjacent to Cedarcrest High School. The new grade school will provide additional permanent capacity for K-8 in 2011-2012. Technology upgrades to all facilities are planned out until 2012.

**Riverview School District Capital Improvement Plan**

The following tables show capital improvement projects planned for the District.

**Table CF - 9:  
Planned New Projects**

Project	Location	Capacity Added	Source of Funds*	% of project from New Development	Growth related project? Yes or No
<b>2005-2006</b>					
Portables, Tolt Middle School	Carnation	24	Impact Fees	100%	Yes
<b>2011-2012</b>					
New kindergarten through 8th grade	Duvall	720	Impact fees and local bond issue proposal	100%	Yes

Source: 2006 Riverview School District Capital Facilities Plan

**Table CF - 10:  
Planned Projects to Existing Facilities**

Project	Location	Capacity Added	Source of Funds*	% of project from New Development	Growth related project? Yes or No
<b>2006-2007</b>					
Technology Upgrades	All	-0-	Technology Levy	-0-	No
<b>2007-2008</b>					
Technology Upgrades	All	-0-	Technology Levy	-0-	No
<b>2008-2009</b>					
Technology Upgrades	All	-0-	Technology Levy	-0-	No
Classroom Addition – Physical Education	Cedarcrest High	32	Impact fees and bond issue proposal	-0-	Yes
<b>2009-2010</b>					
Technology Upgrades	All	-0-	Technology Levy	-0-	No
<b>2010-2011</b>					
Technology Upgrades	All	-0-	Technology Levy	-0-	No
<b>2011-2012</b>					
Technology Upgrades	All	-0-	Technology Levy	-0-	No

\* Technology upgrades are based on using funds from the Technology Levy approved by voters in February 2006.

Source: 2006 Riverview School District Capital Facilities Plan

**Budget and Financing Plan**

Table CF – 11 is a summary of the budget that supports the elements of this Capital Facilities Plan. Each project budget represents the total project costs which include: acquisition, construction, taxes, planning, architectural and engineering services, permitting, environmental impact mitigation, construction testing and inspection, furnishings and equipment, escalation, and contingencies. In addition, it includes financing that is separated into three components: estimated state financial assistance, estimated impact fees, and projected local revenues (i.e., interest income and local levies).

**Table CF - 11:  
2006 Capital Facilities Plan Budget**

<b>PROJECT</b>	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	<u>Total</u>	<u>Local Funds *</u>	<u>State Assistance</u>	<u>Impact Fees</u>
<b><i>Growth Related Projects</i></b>											
Portables, Tolt MS	\$150,000							\$150,000			\$150,000
Cedarcrest High Classroom Addition – Physical Education Facility				\$3,283,000				\$3,283,000	\$2,547,000		\$736,000
New kindergarten through 8th grade							\$14,300,000	\$14,300,000	\$9,194,000	\$644,000	\$4,462,000
<b><i>Other Projects</i></b>											
Technology Acquisitions & Upgrades	\$634,000	\$689,000	\$660,000	\$660,000	\$660,000	\$356,400		\$3,659,400	\$3,659,400		
<b>Totals:</b>	\$784,000	\$689,000	\$660,000	\$3,943,000	\$660,000	\$356,400	\$14,300,000	\$21,392,400	\$15,400,400	\$644,000	\$5,348,000

The Riverview School District currently does not have an impact fee. The 2006-2011 Capital Facilities Plan anticipates the impact fees shown in Table CF-12:

**Table CF - 12:  
Impact Fee Schedule - All Jurisdictions**

Housing Type	Impact Fee per Unit
Single-family	\$538
Multi-family	\$124

Concurrent with or subsequent to approval of the 2006 Comprehensive Plan Amendments, staff will prepare an ordinance for the City Council establishing the school impact fee.

## Reassessment Strategy

GMA requires that provision should be made to reassess plan elements periodically in light of the evolving capital facilities plan. This is to determine if probable funding for capital facilities is insufficient to meet existing needs. If a funding shortfall occurs, the Land Use Element must be reassessed. Changes can then be made to rectify the shortfall either by restricting land use development or by lowering the facility standard.

In the event that the City cannot fund the capital improvements needed to maintain required service levels (as identified in the Capital Facilities Plan), then the City shall take one or a combination of the three following actions:

1. Phasing of proposed developments that are consistent with the Land Use Element until such time that adequate resources can be identified to provide adequate capital facility improvements.
2. Reassessment of the City's financing strategy to find additional opportunities. These could include federal and regional grants, loans, and funding programs; partnerships with King County or other service providers; or partnerships with the private sector.
3. Reassessment of the City's adopted service standards to reflect service levels that can be maintained given known financial resources.

## Goals and Policies

**Goal CF – 1**                      **Ensure that public facility plans adequately address existing service deficiencies and future needs.**

***Policies***

CF – 1.1                      Establish a policy that results in the timely review of all city capital facilities plans on a regular basis to ensure that the plans provide for appropriate levels of infrastructure development.

CF – 1.2                      Ensure that the public funding for infrastructure development is accounted for in city budgets.

**Goal CF – 2**                      **Ensure that adequate public facilities and services serving new developments are concurrent at the time of land use approval of such developments and that services for new developments will not negatively impact existing service levels.**

***Policies***

CF – 2.1                      Establish strategies to address facility and service needs that are consistent with the land use and transportation elements, existing facility plans, and are financially feasible.

CF – 2.2                      Phase development so that public facilities and services can be provided for both existing and future growth in a manner that does not outpace the City's ability to provide and maintain adequate levels of service.

CF – 2.3                      The City shall extend services to properties within the Urban Growth Area upon annexation while maintaining levels of service for existing customers.

CF – 2.4                      Management of capital facilities should emphasize the following concepts:

- a. Provide preventive maintenance and cost effective replacement of aging elements;
- b. Plan for extension and upgrades of capital systems while recognizing that system extension associated with new development should be the responsibility of those desiring service;
- c. Inspect systems to ensure conformance with design standards and reduce the potential for service rate increases through effective fiscal management and fair and equitable rate structures.

**Goal CF – 3**                      **Finance the City's needed capital facilities in an economic, efficient and equitable manner.**

***Policies***

CF – 3.1                      Use Duvall's Six Year Capital Improvement Plans (CIP) to prioritize the financing of capital facilities within projected funding capacities and to clearly identify sources of public money for each project.

CF – 3.2                      Equitably distribute the cost of capital facilities among the primary beneficiaries of the facility.

- CF – 3.3 Future development shall bear facility improvement costs necessitated by the development to achieve and maintain adopted level of service standards and efficient service provision.
- CF – 3.4 Pursue all available funding sources for proposed community facilities, downtown improvements, park and recreation facilities, trails/walkways, road improvements and utilities.
- CF – 3.5 Adopt and collect impact fees in accordance with the GMA as part of the financing for public facilities. Such financing shall provide for a balance between impact fees and other sources of public funds and shall not rely solely on impact fees. Public facilities for which impact fees may be collected include: public streets and roads, publicly owned parks, open space and recreation facilities, school facilities, and fire protection services.
- CF – 3.6 Seek public and private partnerships for new facilities where possible that share an equitable share of expenses.

**Goal CF – 4 Ensure the efficient and equitable siting of public facilities through coordinated planning within City departments, between City and non-city providers and with other jurisdictions.**

***Policies***

- CF – 4.1 Siting of capital facilities shall be based upon criteria including, but not limited to:
- a. Specific facility requirements, such as acreage, transportation access, etc.;
  - b. Land use compatibility;
  - c. Potential environmental or traffic impacts;
  - d. Consistency with the Comprehensive Plan.
- CF – 4.2 Capital facilities shall not be located in areas designated as critical or environmentally sensitive unless no other alternative is available.
- CF – 4.3 The City should not provide for the extension of public facilities and services outside the Urban Growth Area, excepted as noted in Policy 5.9 regarding water services.

**Goal CF - 5 Maintain and enhance the development and operation of an effective and efficient water system at fair market value that will meet the needs of Duvall's present and future population.**

***Policies***

- CF – 5.1 Continue to work with Seattle Public Utilities and with East King County Regional Water Association in order to achieve goals and objectives of providing reliable levels of service for Duvall residents and those within the water service area.
- CF – 5.2 Support and implement water conservation and reuse measures that reduce water use, such as:
- a. Public education;
  - b. Billing rate structures which encourage conservation;
  - c. Reclamation of wastewater for irrigation use;
  - d. Encourage drought tolerant plantings and native vegetation for public and private development, and;
  - e. Impose water restrictions during droughts.

- CF – 5.3 Maintain an updated comprehensive water system plan that is coordinated with the Land Use Element so that new development is located where sufficient water system capacity exists or can be efficiently and logically extended.
- CF – 5.4 Ensure that water service necessary to support development will be adequate to serve the residents at the time new development is available for occupancy and use.
- CF – 5.5 Establish a reserve fund and pursue outside funding services to finance needed improvements to the water system.
- CF – 5.6 Coordinate with Duvall/King County Fire District 45 to ensure adequate fire flow in all areas of the city.
- CF – 5.7 Ensure all new development within the service boundary is served by the municipal water system.
- CF – 5.8 Monitor the City's water supply to ensure that future water supply needs and water quality requirements will be met.
- CF – 5.9 Continue to provide water service to those properties that receive water from the City and which are located outside the City's Urban Growth Area.

**Goal CF – 6                      Maintain and enhance the development and operation of an effective and efficient sewer treatment plant and collection system that will meet the needs of Duvall's present and future population.**

***Policies***

- CF – 6.1 Require all properties that develop or redevelop within the city limits to connect to the City's sewer system.
- CF – 6.2 Increase sewer treatment plant and collection line capacities to meet the needs of Duvall residents and land within the Urban Growth Area, as well as meet state and federal discharge standards. Service to the UGA shall not occur until such properties are annexed into Duvall.
- CF – 6.3 Increase capacity to reflect increased usage trends influenced by the City's growth and economic development.
- CF – 6.4 Maintain an updated comprehensive sewer system plan that is coordinated with the Land Use Element so that new development is located where sufficient sewer system capacity exists or can be efficiently and logically extended.
- CF – 6.5 Ensure that existing deficiencies in the sewer system are upgraded.
- CF – 6.6 Encourage all non-redeveloping properties that annex into the city to phase out their septic systems and connect to the City sewer system.

**Goal CF – 7                      Maintain and enhance the development and operation of an effective and efficient stormwater treatment system that will meet the needs of Duvall's present and future population.**

***Policies***

- CF – 7.1 Manage the quality of stormwater runoff to protect public health and safety, surface and groundwater quality and the natural drainage system.

- CF – 7.2      Require design of storm drain lines or pathways to minimize potential erosion and sedimentation, discourage significant vegetation clearing, and preserve the natural drainage systems such as rivers, streams, lakes and wetlands.
- CF – 7.3      Require development regulations that encourage the reduction of impervious surface and retention of natural vegetation.
- CF – 7.4      Ensure that storm drainage facilities necessary to support construction activities and long-term development are adequate to serve the development at the time of construction and when the development is available for occupancy and use.
- CF – 7.5      Require design of new development to allow for efficient and economical provision of storm drainage facilities and require new development to pay general facility charges.
- CF – 7.6      New development should minimize increases in total runoff quantity, should not increase peak storm water runoff, and should prevent flooding and water quality degradation.
- CF – 7.7      Review and update as necessary City stormwater and flood hazard regulations. Participate in regional water quality and flood hazard reduction efforts within all drainage basins that affect the city.

**Goal CF – 8                      Ensure the transportation system program provides for future road projects throughout the city to allow growth-related improvements.**

***Policies***

- CF – 8.1      The City should continue to improve roads throughout the city that are in disrepair or are in need of safety improvements.
- CF – 8.2      Assess impact fees to help alleviate the City's burden of funding transportation projects.
- CF – 8.3      Seek state and local grants to help fund all road improvements within the city.

**Goal CF – 9                      Effectively develop, manage and maintain high quality parks and recreation facilities which meet the needs of Duvall's present and future population.**

***Policies***

- CF – 9.1      Seek innovative methods of financing those projects listed on the six-year and twenty-year parks & recreation capital improvement plans.
- CF – 9.2      Consider joint ventures with public and private agencies to assist in facility development, maintenance and operation, and to reduce costs.
- CF – 9.3      Encourage park facilities that are of low maintenance and high capacity design that reduces overall facility maintenance.
- CF – 9.4      Consider the cost of maintenance prior to funding construction of new facilities.



<b>Goal CF – 10</b>	<b>Provide cost effective municipal public facilities to all residents of Duvall in a manner that protects investment in existing facilities, maximizes use of existing facilities, expands facilities in a cost efficient manner, and promotes orderly urban growth.</b>
<i><b>Policies</b></i>	
CF – 10.1	Ensure public safety services are adequately funded to provide the necessary level of services for present and future needs of the community.
CF – 10.2	Set aside funds for the City's share of improvements required by growth to achieve an efficient level of service for essential public services and facilities. Apply for grants whenever feasible to finance public facilities.
CF – 10.3	Support and encourage joint development and use of community facilities with other governmental or community organizations in areas of mutual concern and benefit.
CF – 10.4	To the maximum extent possible, consider opportunities to co-locate activities and otherwise optimize public facility utilization in order to delay the need for new facilities.
<b>Goal CF – 11</b>	<b>Work in cooperation with Riverview School District to help the District accomplish their capital improvement objectives and mitigate, where possible, the impacts of growth to ensure that adequate school facilities are provided for Duvall's growing population.</b>
<i><b>Policies</b></i>	
CF – 11.1	Require impact fees to ensure that school facilities will be provided concurrently with future development within the city.
CF – 11.2	Annually review and adopt the District's six-year capital facilities plan.
<b>Goal CF – 12</b>	<b>Ensure that the Capital Facilities and Land Use Elements are reassessed for consistency on a regular basis and propose changes for any insufficient levels of funding.</b>
<i><b>Policies</b></i>	
CF – 12.1	In the event anticipated funding levels fall short of planned essential capital facilities needed to serve projected population, reassess the Land Use Element and propose modifications as necessary to ensure that the Land Use Element remains consistent with the capital facilities financing plan.

## **References**

- City of Kenmore (March 2001). City of Kenmore Comprehensive Plan. Kenmore, WA.
- City of Kirkland (January 2002). City of Kirkland Comprehensive Plan. Kirkland, WA.
- City of North Bend (2002). City of North Bend Comprehensive Plan. North Bend, WA.
- City of Redmond (1995). City of Redmond Comprehensive Plan. Redmond, WA.
- City of Sammamish (September 2003). City of Sammamish Comprehensive Plan.  
Sammamish, WA.
- City of Woodinville (December 2002). City of Woodinville Comprehensive Plan. Woodinville WA.
- FCSG (2003). Sewer Rate and General Facilities Charge Analysis. Duvall, WA.
- Gardner Consultants (1997). City of Duvall Stormwater Management Plan. Duvall, WA.
- Parametrix (2001). City of Duvall Wastewater Facility Plan. Duvall, WA.
- RH2 (2004). City of Duvall Comprehensive Water System Plan. Duvall, WA.
- Riverview School District. 2006 Riverview School District Capital Facilities Plan. Carnation, WA.